

Appl. No. 10/823,182
Amdt. dated July 29, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1.-4. (Cancelled).
5. (New) A method, comprising:
configuring a logical buffer to function as a FIFO buffer when a packet transmission starts;
if a data under-run occurs, configuring the logical buffer to extend the packet transmission for a predetermined time period; and
abandoning the packet transmission after the predetermined time period expires.
6. (New) The method of claim 5 further comprising configuring the logical buffer to abandon the data transmission immediately when a data under-run occurs.
7. (New) The method of claim 5 wherein abandoning the packet transmission comprises terminating the packet transmission with a symbol that indicates the packet is not to be processed.
8. (New) The method of claim 5 wherein abandoning the packet transmission comprises terminating the packet transmission with a symbol that indicates the packet is not to be reported in error by intermediate routing nodes.
9. (New) The method of claim 5 wherein abandoning the packet transmission comprises terminating the packet transmission with a symbol that indicates the packet is not to be reported in error by a destination node.

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10. (New) The method of claim 5 further comprising configuring the logical buffer to store and forward packet transmissions after said abandoning the packet transmission.

11. (New) The method of claim 10 further comprising restarting transmission of the packet transmission after the logical buffer is configured to store and forward packet transmissions.

12. (New) The method of claim 5 further comprising continuing the packet transmission, after the data under-run occurs, if valid data associated with the packet transmission is input to the logical buffer before the predetermined time period expires.

13. (New) A system, comprising:
a logical buffer configurable in at least two modes; and
a timer,
wherein, when a packet transmission starts, the logical buffer is initially configured in a FIFO mode, and
wherein, if a data input rate to the logical buffer is less than a data output rate from the logical buffer, the timer starts, and
wherein, if the timer runs for more than a predetermined amount of time, the logical buffer is configured in a mode that buffers all data of the packet transmission prior to forwarding the packet transmission.

14 (New) The system of claim 13 wherein the logical buffer causes fill command symbols to be output while the timer runs.

15. (New) The system of claim 13 wherein the timer is reset if valid data is received by the logical buffer before the timer runs for more than the predetermined amount of time.

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16. (New) The system of claim 13 wherein the logical buffer abandons transmitting the packet transmission in the FIFO mode if the timer runs for more than the predetermined amount of time.

17. (New) The system of claim 13 wherein the logical buffer and the timer are implemented in a ServerNet system.

18. (New) The system of claim 17 wherein the ServerNet system comprises a requesting session block, a transmit buffer block coupled to the requesting session block, and a transmit packet layer protocol block coupled to the transmit buffer block.

19. (New) The system of claim 18 wherein the logical buffer is implemented within the transmit buffer block.

20. (New) The system of claim 19 wherein the requesting session block is configured to make a request to the logical buffer when the packet transmission starts.

21. (New) The system of claim 20 wherein the requesting session block is further configured to write a packet header to the logical buffer, generate a read request to a memory interface, and send a start signal to the transmit buffer block.

22. (New) The system of claim 21 wherein the transmit buffer block, upon receiving the start signal from the requesting session block, configures the logical buffer in the FIFO mode such that the logical buffer starts transferring data to the transmit packet layer protocol block for transmission to a destination.

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23. (New) The system of claim 18 wherein a valid data signal is asserted as each word of the packet transmission is transferred from the logical buffer to the transmit packet layer protocol block.

24. (New) The system of claim 23 wherein the valid data signal is de-asserted when said data input rate is lower than said data output rate.

25. (New) The system of claim 24 wherein the timer starts when the valid data signal is de-asserted.

26. (New) The system of claim 25 wherein the transmit packet layer protocol block causes fill command symbols to be transmitted while the timer runs.

27. (New) The system of claim 26 wherein, if the timer runs for more than the predetermined amount of time, the transmit packet layer protocol block abandons the packet transmission.

28. (New) The system of claim 27 wherein, in response to the transmit packet layer protocol block abandoning the packet transmission, the logical buffer transitions to the mode that buffers all data of a packet transmission prior to starting packet transmission.

29. (New) A system, comprising:
a logical buffer configurable in at least two modes;
means for configuring the logical buffer in a FIFO mode when a packet transmission starts;
means for tracking an amount of time from when a data-under run occurs;
and
means for configuring the logical buffer in a mode that stores and forwards the packet transmission, if the means for tracking an amount of time indicates that more than a predetermined time period has passed.

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30. (New) The system of claim 29 further comprising means for extending the packet transmission with fill command symbols while the means for tracking an amount of time operates during a data under-run.

31. (New) The system of claim 29 wherein the means for tracking an amount of time is reset if valid data is received by the logical buffer before the predetermined time period has passed.

32. (New) The system of claim 29 wherein the logical buffer abandons transmitting the packet transmission in the FIFO mode if the means for tracking an amount of time indicates that more than the predetermined amount of time has passed.